

NEGATIVE PHOTORESIST AND METHOD OF USING THEREOF

Abstract of the Disclosure

A negative photoresist composition and a method of patterning a substrate through use of the negative photoresist composition. The composition includes: a radiation sensitive acid generator; a multihydroxy-containing additive; and a resist polymer comprising a first repeating unit from a first monomer. The resist polymer may also comprise a second repeating unit from a second monomer, wherein the second monomer has an aqueous base soluble moiety. The multihydroxy-containing additive has the structure $Q-(OH)_m$, where Q may include at least one alicyclic group and m may be any integer between 2 and 6. The acid generator is adapted to generate an acid upon exposure to radiation. The resist polymer is adapted to chemically react with the additive in the presence of the acid to generate a product that is insoluble in a developer solution.